## REMARKS/ARGUMENTS

These remarks are submitted in response to the Non-Final Office Action dated March 23, 2006 (Office Action). As this response is timely filed within the three-month statutory period, no fee is believed to be due. Nonetheless, the Examiner is expressly authorized to charge any deficiencies and credit any overpayments to Deposit Account No. 50-0951.

Applicants, as an initial matter, wish to express appreciation for the Examiner's thorough examination of the application and articulate response to Applicants' prior submissions. Applicants also express appreciation for the Examiner's efforts to expedite a complete examination notwithstanding the rejections 35 U.S.C. § 101 stated at page 5 of the Office Action.

At page 2 of the Office Action, it is noted that Applicants' information disclosure statement (IDS) submitted March 29, 2004, complies with 37 CFR § 1.97. It is also noted that the drawings, as originally filed, were accepted.

At page 5 of the Office Action, Claims 1-28 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Published Patent Application No. 2002/0010715 to Chinn, *et al.* (hereinafter Chinn), in view of U.S. Patent No. 6,275,378 to Schuba, *et al.* (hereinafter Schuba). Additionally, Claims 9 and 22 were rejected at pages 2-3 of the Office Action under 35 U.S.C. § 112, second paragraph, for a lack of proper antecedent basis. Claims 27 and 28 were rejected at pages 3-4 of the Office Action under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Applicants have amended Claims 9 and 22 to correct the lack of antecedent basis noted by the Examiner. Applicants also have amended Claim 27 to address the rejection under 35 U.S.C. § 101. The claim amendments are fully supported throughout the Specification. The amendments do not introduce new matter.

***The Claims Define Over The Prior Art***

As noted above, independent Claims 1, 4, 14, 18, 27, and 28 were each rejected as being unpatentable over Chinn in view of Schuba. Chinn is directed to a system and method of browsing using a Web-enabled "limited" display device or "voice commands." (See paragraph [0006]; see also Abstract.) Chinn's system and method rely on the conversion of a conventional markup language into a navigation tree comprising a semantic, hierarchical structure, which includes one or more paths associated with the content of a conventional markup language document and a grammar comprising a vocabulary of one or more keywords. (See, e.g., paragraphs [0006]-[0009]; and Abstract.) Web content stored on a server can be retrieved using Chinn by traversing a path of the navigation tree in response to a user request that includes at least one keyword.

It is stated in the Office Action that Chinn discloses each of the features recited in the claims except that of decreasing a time-out threshold. It is further stated, however, that this feature is found in Schuba.

Schuba is directed to data communications network security. (See, e.g., Col. 1, lines 13-17, and lines 57-60.) In particular, Schuba involves detecting and classifying messages comprising network-distributed Transmission Control Protocol (TCP) packets to defend against denial-of-service attacks. Schuba, however, is wholly devoid of any teaching pertaining to interactive voice response (IVR) systems, specifically, or even a brief reference to such systems.

The single sentence from Schuba cited reads: "Preferably, time period T1 is set to a value significantly less than the default time-out duration commonly associated with [a] target destination host." (Col. 10, lines 25-28.) The time period, T1, to which Schuba refers, however, must be read in the context in which it is used. Schuba, as noted, is exclusively focused the conveyance of data packets over a data communications network, and in particular, on safeguarding against the "flooding" of a message receipt node with

spurious synchronization (SYN) packets. The time period to which Schuba refers, more particularly, pertains to the time during which a TCP packet has a particular address state, which according to Schuba, is monitored by a state machine as part of Schuba's process for safeguarding against denial-of-service attacks.

The time period, in its fuller context, is described in Schuba as follows:

> "New address state 114 is coupled to conditional loop 116. Loop 116 is triggered by the receipt of further SYN packets, symbolizing that new address state 114 is maintained in response to multiple SYN packets. In response to the triggering of loop 116, current datagram information is recorded for use in case a RST packet needs to be sent to a corresponding destination host 54 in a different state. Transition path 118 conditionally couples new address state 114 and bad address state 120. If a given source address remains in state 114 for a time period T1 determined by monitor 52 relative to its timestamp, an "expiry" timer event is generated. A change of state from new address state 114 to bad address state 120 along transition path 118 is triggered by an expiry event.
>
> "Conditional loop 122 is triggered by the detection of any successive SYN packets with the suspect source address in bad address state 120. The triggering of conditional loop 122 causes a RST packet to be sent to the targeted destination host 54 in the manner described in connection with stage 72. Accordingly, the connection associated with the source address in state 120 is closed, freeing resources of the targeted destination host 54. Conditional loop 122 returns to bad address state 120 with each successive SYN packet corresponding to the suspect source address. As a result, suspect addresses that are likely to be spoofed reach bad address state 120

after first being monitored at the new address state 114 for the time period T1. The diagram of FIG. 8 illustrates the packet sequence for a suspect source address in bad address state 120 for which a RST packet is transmitted to the targeted destination host by triggering conditional loop 122 with another SYN packet. Preferably, time period T1 is set to a value significantly less than the default time-out duration commonly associated with the targeted destination host 54. However, it should be appreciated that a time period T1 that is too low may adversely impact the formation of relatively slow legitimate connections." (Col. 10, lines 10-31.) (Emphasis Supplied.)

The quoted language clearly reveals that Schuba's concern is with reducing a time-out below a default threshold in order to balance concerns over network security with the goal of efficient exchange of data packets over a data communications network. Schuba, however, suggests nothing about altering a time-out threshold in the context of IVR systems. Specifically, Schuba provides no suggestion regarding altering a time-out threshold depending on the underlying nature of a response, or lack of same, to an IVR prompt, as in Applicants' invention.

In independent Claims 1, 14, and 27, the nature of an underlying event that leads to the setting of a time-out value is based upon whether or not the event is a user-initiated request for help from the IVR system. A default value is utilized if the event is not a user-initiated request for help, but if the event is a user-initiated request for help, a shorter time-out expiry period is utilized by reducing the default threshold. In independent Claims 5, 18, and 28, a time-out threshold is reduced, but only in response to an explicit request for help from a user; the time-out threshold is unchanged for other help-inducing events. Chinn may well recognize when a user requests help, as well as when a user fails

to provide a recognizable response or any response at all in a set time frame. But Chinn treats each of these underlying events the same.

In the Office Action it is stated that Schuba provides what Chinn does not because Schuba discloses the reducing of a time-out period below its default threshold. The question remains, however: for which underlying event – a non-response, a non-matching response, or an express user request for help – should the time-out threshold be reduced? Neither Chinn nor Schuba suggests an answer. Chinn does not provide an answer since Chinn treats each underlying event the same. Whether the event is a help request, a response rejection, or no response, the event invokes the same response. (See, e.g., paragraph [0145] .)

Schuba certainly does not provide the answer since Schuba does not even address a reduction of a time in the context of user responses, let alone in the specific context of an IVR system. Schuba does not even consider reducing a time-out threshold based on the underlying nature of a user response, or lack thereof, because Schuba only addresses the exchange of data packets over a data communications network. Reducing a time-out threshold in order to balance concerns over network security with the goal of efficient exchange of data packets over a data communications network suggests nothing about altering a time-out threshold based on the nature of an underlying IVR event. Nothing in Schuba regarding the proper time-out interval for the receipt of (SYN) data packets suggests that an explicit, or user-initiated, help request should invoke a different timing criterion than does other types of help-initiating events in an IVR system. More particularly, Schuba does not teach or suggest that a user-initiated or explicit user help request to an IVR system should be accorded a shorter time-out period than the period accorded to other help-initiating events.

The claims explicitly recite that a user-initiated, or explicit, help request result in a reduction of a time-out below a threshold value applied to other help requests. But

neither Chinn nor Schuba, even in combination, provide this nuance in handling help requests directed to an IVR system.

Applicants respectfully submit that the fact that Schuba does not even address issues relevant to IVR systems precludes any proper basis for combining Schuba with Chinn. More fundamentally, however, even when combined, Chinn in view of Schuba yet fails to teach or suggest a fundamental feature recited in each of the independent claims, specifically, assigning a shorter time-out duration to user-initiated and explicit IVR help requests relative to other help-initiating events. Chinn may provide a time-out for help-initiating events in an IVR system, while Schuba may provide the reduction of a time-out threshold in the context of a network exchanges of data packets, but the claims expressly recite more than these features. Each of the independent claims recites that explicit, or user-initiated, IVR help requests are treated differently from other help requests by inducing a shorter time-out interval.

Applicants note that their invention was derived from extensive observations of different IVR users working with conventional speech applications, which as in Chinn, use the same time-out durations for each event that invokes a help response. Applicants' observation was that explicit requests for help typically require special treatment because an average user, having requested help once, intuitively does not expect to hear a different voice message if they again request help. Recognition of these factors could not be gleaned from merely reading the recited references. Applicants further assert that the invention provides distinct advantages, such as reducing an audio footprint of a speech application and a reduction in the no-input time-out between messages given an explicit request for help. These advantages are not suggested by the cited references, since even when combined, neither Chinn nor Schuba suggest that user-initiated, or explicit, IVR help requests should be treated differently from other help requests by inducing a shorter time-out interval

Accordingly, Chinn and Schuba fail to teach or suggest every feature recited in independent Claims 1, 5, 14, 18, 27, and 28. Applicants respectfully submit, therefore, that each of the claims defines over the prior art. Applicants further respectfully submit that whereas each of the dependent claims depends from one of Claims 1, 5, 14, 18, 27, or 28, while reciting additional features, the dependent claims likewise define over the prior art.

***Claims 27 and 28***

With respect to independent Claims 27 and 28, Applicants respectfully submit first that there is "no judicially recognizable separate 'technological arts' test to determine patent eligible subject matter under § 101, *Ex parte Lundgren*, 76 USPQ2d 1335, 1338 (BPAI 2005). Additionally, Applicants respectfully submit that Claim 27, as amended, and Claim 28 are directed to systems that produce each produce "useful, concrete, and tangible results." Amended Claim 27, for example, recites that a programmatic action is instigated in response to other actions effected by the claimed system. Claim 28, for example, recites the audible presentment of a help message in response to other actions effected by the claimed system

Moreover, each of Claims 27 and 28 recite means for performing specified functions. Accordingly, the claims recite more than mere ideas. Section 112, paragraph 6, allows a patentee to express a claim limitation by reciting a function to be performed rather than by reciting structure or materials for performing that function. Nonetheless, "[s]uch a limitation is construed to 'cover the corresponding structure, materials or acts described in the specification and equivalents thereof.'" *Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1350 (Fed. Cir. 2003) (citations omitted).

Applicants respectfully assert, therefore, that Claim 27, as amended, and Claim 28 recite patentable subject matter. Applicants further respectfully assert that, for the reasons already stated, both of the claims define over the prior art.

## CONCLUSION

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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